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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,352	12/21/2000	Jingdong Lin	J. LIN 3	1689
47396	7590	07/12/2005	EXAMINER	
HITT GAINES, PC			WANG, TED M	
AGERE SYSTEMS INC.				
PO BOX 832570			ART UNIT	PAPER NUMBER
RICHARDSON, TX 75083			2634	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/746,352	LIN, JINGDONG	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ted M. Wang	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 17 December 2004.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1,3-8,10-15,17-21 and 23-44 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 1,3-8,10-15,17-21,23-28 and 39-43 is/are allowed.  
 6) Claim(s) 29-38 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 03/28/2001 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Response to Arguments***

1. Applicant's arguments with respect to claim 1, 3-8, 10-15, 17-21, and 23-44 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 29 – 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Hansen (US2002/0097791).

- With regard claim 29, Hansen discloses a system for use with a communications channel comprising:
  - an assorter (Fig.1 elements 12, 14, 26, 32, and 38, and paragraphs 15-22) configured to receive first and second signals having disparate transmission characteristics (Fig.1 element 16) and select one of said first and second signals (Fig.1 elements 12, 14, 26, 32, and 38 and Fig.2 elements 50-54, and paragraphs 35-37); and
  - a translator (Fig.1 element 40, Fig.2 element 58-66, and paragraphs 38-40), coupled to said assorter, including a map table evoker (Fig.2 element 58-64 and paragraphs 38-40) configured to determine a conversion table to employ with said selected one of said first and second signals and a converter (Fig.1 element 40, Fig.2 element 66, paragraph 27-30, and paragraphs 38-40), coupled to said

map table evoker, configured to encode said one of said first and second signals into a symbol representation as a function of a transmission characteristic associated therewith (Fig.2 element 58-66, paragraphs 27-30, and paragraphs 38-40).

- With regard 30, Hansen further discloses wherein said first signal is a voice signal and said second signal is a data signal (Fig.1 elements 14-16 and paragraph 15).
- With regard 31, Hansen further discloses that the system is embodied in at least one of a transmitter and a receiver associated with a telecommunications network associated with said communications channel (Fig.1 and paragraph 11).
- With regard 32, Hansen further discloses that the system is at least partially embodied in a sequence of operating instructions operable on a processor (Fig.2 element 48 and paragraph 34).
- With regard 33, Hansen further discloses wherein said communications channel has a frequency dependent channel capacity (paragraph 26) and said first and second signals have different bit error rate transmission characteristics (paragraph 26), said translator configured to encode said selected one of said first and second signals into said symbol representation as a function of said bit error rate transmission characteristics and said channel capacity (paragraphs 22-25).

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- With regard claim 34, which is a mean function claim related to claim 29, all limitation is contained in claim 29. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 35, which is a mean function claim related to claim 30, all limitation is contained in claim 30. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 36, which is a mean function claim related to claim 31, all limitation is contained in claim 31. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 37, which is a mean function claim related to claim 32, all limitation is contained in claim 32. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 38, which is a mean function claim related to claim 33, all limitation is contained in claim 33. The explanation of all the limitation is already addressed in the above paragraph.

***Allowable Subject Matter***

3. Claims 1, 3-8, 10-15, 17-21, and 23-28, and 39-43 are allowed.

***Conclusion***

4. Reference(s) US 6,424,678 and US 6,549,584 are cited because they are put pertinent to the transceiver with constellation mapping. However, none of references teach detailed connection as recited in claim.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

6. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted M. Wang whose telephone number is 571-272-3053. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ted M Wang  
Examiner  
Art Unit 2634

Ted M. Wang



**SHUWANG LIU**  
**PRIMARY EXAMINER**